



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

SW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,357	12/19/2000	Craig S. Aman	10003506	3380

28159 7590 11/26/2004

ATL ULTRASOUND
P.O. BOX 3003
22100 BOTHELL EVERETT HIGHWAY
BOTHELL, WA 98041-3003

EXAMINER

SOTOMAYOR, JOHN

ART UNIT PAPER NUMBER

3714

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,357

Applicant(s)

AMAN, CRAIG S.

Examiner

John L Sotomayor

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 38-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 38-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3714

DETAILED ACTION

Response to Amendment

1. In response to the amendment filed August 16, 2004, claims 27-37, 48 and 49 are canceled and claims 1-26 and 38-47 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 38 and 40 are rejected under 35 U.S.C. 102(a and/or e) as being anticipated by Hon (US 6,074,213).

Regarding claim 38, Hon discloses an instructional method simulating the control of medical devices under the direction of a rule-based expert system, simulating the first aid use of the medical device and providing feedback to the user concerning the correct results from the device (Col 9, lines 5-44), and providing a plurality of instructional graphical user interfaces at least one of which displays a simulation of operating controls or device instruments of the medical device (Col 10, lines 1-15).

Art Unit: 3714

Regarding claim 40, Hon discloses a system and method within which the display stations, which interact with a user through a Graphical User Interface (GUI), are equipped with a voice interface for audio interaction with the user (Col 4, line 61, Col 15, lines 39-41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1,4,5,7-10,12-14,16,18-19,21-24,26 and 44-49 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hon (US 6,074,213) in view of Ramshaw et al (US 5,791,907).

Regarding claim 1, Hon discloses a system, method and apparatus for the training of users of a medical system. Hon discloses that educational instructions are pre-loaded into the system and available for recall by users of the system contacting the rule-based expert system

Art Unit: 3714

component (Col 3, lines 16-44). The instructions and simulation information are provided to the users via a plurality of displays on graphical user interfaces over networked devices. (Col 4, lines 56-64, Fig 11). Hon discloses generating feedback to supply information to team members using the medical device (Col 11, lines 36-38). Hon does not specifically disclose that the feedback is used to indicate whether a particular interaction is appropriate under given conditions. In addition, Ramshaw et al teaches a network connected interactive medical training system for teaching students how to use medical devices in which a student is presented with a selection of instruments for use in a particular procedure step and will rerequest the information on instrument use until the user enters the appropriate answer where the answer is the appropriate instrument for use in that particular step of the procedure under the conditions pertaining in the simulated procedure (Col 3, lines 33-43). Therefore, it would have been obvious to one of ordinary skill at the time of invention to extend an existing feedback information stream to include informing users as to the correct use of a medical device as disclosed by Hon in combination with whether a particular interaction is appropriate under given conditions as taught by Ramshaw et al for the purposes of imprinting in the student the correct instrument to use under a plurality of conditions.

Regarding claims 4 and 18 Hon discloses a system and method within which the display stations, which interact with a user through a Graphical User Interface (GUI), are equipped with a voice interface for audio interaction with the user (Col 4, line 61, Col 15, lines 39-41).

Regarding claims 5 and 19, Hon discloses that the instructional system and method may use the Internet and intranets for communication between users (Col 16, lines 11-16). Hon does not specifically state that the navigation capability of the GUI in use by the system and method is

Art Unit: 3714

linear and non-linear. However, it is common and well known to use a web browser as a means of navigation on Internet capable display devices. Inherent to a web browser is the capacity for linear and non-linear navigation from web page to web page. Therefore, it would have been obvious to one of ordinary skill in the art to provide linear and non-linear navigation capability to any system and method utilizing the Internet for connectivity between users.

Regarding claims 7-9, 12,13,21-23, Hon discloses that the instructional information from the expert system may be provided to the users through visual means, including images, video and animation of the subjects in use (Fig 17, Col 14, lines 36-46).

Regarding claims 10 and 24, Hon discloses a simulator with a rule-based expert system that provides a view of various team performance actions in relation to the medical task presented, thus providing the operational steps of a task in proper sequential order (Col 16, lines 23-25).

Regarding claim 14, Hon discloses an educational system with a network, user computers coupled to the network, and a server with educational instructions pre-loaded into the system and available for recall by users of the system contacting the rule-based expert system component (Col 3, lines 16-44). The instructions and simulation information are provided to the users via a plurality of displays on graphical user interfaces over networked devices. (Col 4, lines 56-64, Fig 11). Hon discloses generating feedback to supply information to team members using the medical device (Col 11, lines 36-38). Hon does not specifically disclose that the feedback is used to indicate the appropriateness of the use of the medical device. In addition, Ramshaw et al teaches a network connected interactive medical training system for teaching students how to use medical devices in which a student is presented with a selection of instruments for use in a

Art Unit: 3714

particular procedure step and will rerequest the information on instrument use until the user enters the appropriate answer where the answer is the appropriate instrument for use in that particular step of the procedure under the conditions pertaining in the simulated procedure (Col 3, lines 19-43). Therefore, it would have been obvious to one of ordinary skill at the time of invention to extend an existing feedback information stream to include informing users as to the correct use of a medical device as disclosed by Hon in combination with whether a particular interaction is appropriate under given conditions as taught by Ramshaw et al for the purposes of imprinting in the student the correct instrument to use under a plurality of conditions.

Regarding claim 16, Hon discloses a system capably connected either through the Internet or over an intranet (Col 16, lines 11-16).

Regarding claim 26, Hon discloses educational system instructions on a computer readable medium used with a network, a plurality of user computers coupled to the network, and a server with educational instructions pre-loaded into the system and available for recall by users of the system contacting the rule-based expert system component (Col 3, lines 16-44). The instructions and simulation information are provided to the users via a plurality of displays on graphical user interfaces over networked devices. (Col 4, lines 56-64, Fig 11). Hon discloses generating feedback to supply information to team members using the medical device (Col 11, lines 36-38). In addition, Ramshaw et al teaches a network connected interactive medical training system for teaching students how to use medical devices in which a student is presented with a selection of instruments for use in a particular procedure step and will rerequest the information on instrument use until the user enters the appropriate answer where the answer is the appropriate instrument for use in that particular step of the procedure under the conditions

Art Unit: 3714

pertaining in the simulated procedure (Col 3, lines 19-43). Therefore, it would have been obvious to one of ordinary skill at the time of invention to extend an existing feedback information stream to include informing users as to the correct use of a medical device as disclosed by Hon in combination with whether a particular interaction is appropriate under given conditions as taught by Ramshaw et al for the purposes of broadening the base of information available to a student to arrive at a correct solution more quickly.

Regarding claims 44-49, Hon discloses a system, method and apparatus for the training of users of a medical system in which the interactive simulation object comprises a medical device control object (claims 44,46 and 48) or a medical device first aid instrument object (claims 45,47 and 49) (Fig 14, and Col 10, lines 1-15).

1. Claims 39 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hon in view of Parker et al (US 6,321,113).

Regarding claim 39, Hon discloses a defibrillator station in which an external defibrillator may be inserted for use by the medical team. Hon does not specifically disclose that the defibrillator is an Automated External Defibrillator. However, Parker et al teaches that for a good networked connection at a remote site from the main analysis computer an Automated External Defibrillator is preferred (Col 3, lines 42-64). The AED taught by Parker et al has the networked features that would allow it to be seamlessly integrated into the defibrillator station disclosed by Hon. Therefore, it would have been obvious to one of ordinary skill in the art to provide a defibrillator station in which an external defibrillator may be inserted for use by the medical team as disclosed by Hon and including an AED as the preferred defibrillation device in

Art Unit: 3714

the training system as taught by Parker et al for the purposes of assisting a student in selecting a appropriate device for use in a medical procedure.

Regarding claims 41-43, Hon discloses that the instructional information from the expert system may be provided to the users through visual means, including images, video and animation of the subjects in use (Fig 17, Col 14, lines 36-46). Hon does not specifically disclose that text description is associated with the visual means of instructing users. However, Parker et al teaches that both graphical and textual data of interest to the medical use in progress may be represented on a single screen for use of medical practitioners (Col 5, lines 15-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a text description of one or more steps associated with the graphical representation pertaining to operation of the medical device. Therefore, it would have been obvious to one of ordinary skill in the art to provide an instructional information from the expert system may be provided to the users through visual means, including images, video and animation of the subjects in use as disclosed by Hon with a text description is associated with the visual means of instructing users as taught by Parker et al for the purposes of producing a medical training device that provides users with textual description of a visual image for a more robust training experience.

2. Claims 2,6,11,15,20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hon in view of Ramshaw et al in further view of Parker et al.

Regarding claims 2,11,15 and 25, Hon discloses a defibrillator station in which an external defibrillator may be inserted for use by the medical team. Hon does not specifically disclose nor does Ramshaw et al teach that the defibrillator is an Automated External Defibrillator. However, Parker et al teaches that for a good networked connection at a remote

Art Unit: 3714

site from the main analysis computer an Automated External Defibrillator is preferred (Col 3, lines 42-64). The AED taught by Parker et al has the networked features that would allow it to be seamlessly integrated into the defibrillator station disclosed by Hon. Therefore, it would have been obvious to one of ordinary skill in the art to provide a defibrillator station in which an external defibrillator may be inserted for use by the medical team as disclosed by Hon with an Automated External Defibrillator as taught by Parker et al for the purposes of including an AED as the preferred defibrillation device in the training system.

Regarding claims 6 and 20, Hon discloses a system and method for instructional connection and communication between users of physically separate medical devices, each user of which has a physical display device. Hon does not specifically disclose nor does Ramshaw et al teach that the instructional information provided to users of the system is in text format. However, Parker et al teaches a physically remote AED device connected via a network connection to a remote computer that provides instruction displayed to the user in text format (Col 3, lines 35-40, Fig 1). The system and method disclosed by Hon indicates a rule-based expert system that assists with instruction and the system and method taught by Parker et al displays the rules for the system use as text retrieved from a rules database. Therefore, it would have been obvious to one of ordinary skill in the art to provide a system and method for instructional connection and communication between users of physically separate medical devices, each user of which has a physical display device as disclosed by Hon with instructional information from the rules database on the steps necessary to utilize a connected medical device in text format on the GUI as taught by Parker et al for the purposes of providing instant help information to a student during training exercise.

Art Unit: 3714

3. Claims 3 and 17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hon in view of Ramshaw et al in further view of Parker et al in further view of Olson et al (US 5,645,571). Hon discloses that a plurality of medical devices may be attached to the instructional system and method. Hon does not specifically disclose nor do Ramshaw et al or Parker et al teach operation, troubleshooting or maintenance of these medical device items. However, Olson et al teaches an AED that has self-diagnostic capability as well as providing troubleshooting and device maintenance indicators and instructions (Figs 3 and 4). In attaching the instant AED to a rule-based expert system these troubleshooting, maintenance and diagnostic capabilities could be easily incorporated and displayed to the users in the same manner as any other system or method instructions. Therefore, it would have been obvious to one of ordinary skill in the art to provide a system and method for training on a defibrillator device in communication with a network as disclosed by Hon with help diagnostic that incorporates the existing utility, operation, troubleshooting and maintenance instructions of all medical devices to be connected to the rule-based expert system as taught by Olson et al for the purposes of providing on-site troubleshooting and maintenance as a part of a training exercise.

Response to Arguments

Applicant's arguments filed August 16, 2004 have been fully considered but they are not persuasive.

Applicant's representative presents the argument with respect to claims 38-40 that the Hon reference (a) does not instruct the use of a medical device, (b) that medical device control

Art Unit: 3714

objects and medical device first aid instrument objects are not provided in a graphical user interface, (c) that this lack of GUI instrument objects denies any interaction with said objects, (d) that there is no feedback indicating the correctness of such an interaction, and (e) that the Hon reference is not a training device for novice users but only for those already skilled in the use of medical devices.

With regard to the above arguments, the Examiner would like to point out that claim 38 does not instruct the use of a medical device but only provides for “instructional information on the use of a medical device” which is a different category of informational presentation which can include such information as new procedures and simulations for training and is recited in the Hon reference (Col 6, lines 61-67). In addition, applicant’s representative has mis-characterized the concept of a “graphical user interface” (GUI). The most commonly known and understood GUI is a browser view on a computer monitor, however, a proper definition of a GUI is any computer generated screen with a digitally rendered display providing interaction with software components within the computer system. Hon does indeed recite a GUI, although a custom GUI used for an intended medical training purpose, and does anticipate the claims. Also, the Hon reference recites (Col 3, lines 31-32) that “information retrieval and proper decisions and selection of action by team members in response” to said information is one stated objective of the reference which does show that the reference provides feedback to users of the system indicating the correctness of any interaction with the system recited. Finally, Hon does indeed provide for novice users of the medical system as well as experienced users. In Col 3, lines 40-44 and Col 6, lines 61-67, Hon recites that the system is designed for use as an R&D system, a teaching tool, and provides for the proliferation of new medical procedures to medical

Art Unit: 3714

professionals. At some point in every medical professional's training regimen they are novices in any given category of professional care. With the use of this system to train medical practitioners in newly established and defined procedures, the system is providing training for users who are novices in the new procedure and thus could, by extension, be used to train professionals who are novices to the medical field entirely.

Applicant's representative also presents the argument that the Ramshaw et al reference does not teach or suggest the selection of an appropriate choice among the plurality of medical devices in use in the system. However, the Ramshaw et al reference does indeed provide that capability through hint screens (Fig 9A and 9B) and the continual request for user response until the appropriate instrument is selected for a given training situation.

For these reasons the arguments advanced by applicant's representative are unpersuasive and the rejection is maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 3714

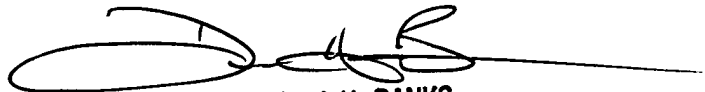
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Sotomayor whose telephone number is 571-272-4456.

The examiner can normally be reached on 6:30-4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

jls
November 23, 2004